

PFIESTERIA AND HUMAN HEALTH

Pfiesteria is a recently recognized organism first identified in 1991 in North Carolina and this summer in the Chesapeake Bay of Maryland and Virginia. It gained widespread publicity because of large fish kills and many fish developing open sores. It is a very complex organism that can behave both like a plant and an animal. It is a dinoflagellate similar to the marine organism that causes Red Tide. Under most conditions, it is innocuous. However, under conditions of high temperature, low dissolved oxygen and high nutrient loading, it produces a powerful toxin.

Human health complaints have occurred as a result of skin contact or inhalation of the toxin. This toxin is not contagious or infectious, and cannot be caught like a cold. Well-documented human health effects linked to *Pfiesteria* have occurred in laboratory conditions, where researchers were working with the organism in close proximity and in high concentrations.

Consistent complaints include memory loss, confusion and/or acute skin burning (on direct contact with water). Other frequent complaints are headache, skin rash, eye irritation, upper respiratory system irritation, muscle cramps and gastrointestinal tract irritation (nausea, vomiting, diarrhea and/or abdominal cramps).

Although there appears to be a causal relationship between *Pfiesteria* exposure in marine waters and health complaints, this relationship has not yet been verified. Never the less, given the concern raised by these reported health effects, we need to be prudent when potentially exposed to *Pfiesteria* toxin.

- Do not to handle fish with lesions unless you have to. If it is necessary, wear impermeable gloves.
- Avoid swimming or skiing in an area where a fish kill is occurring and/or fish with open lesions are being reported.
- Because of the uncertainty of consumer health risks, you should take normal precautions and use common sense: never eat fish that exhibit evidence of sores or disease. Do not eat fish that seem diseased or dying when caught.
- Consumers should completely cook fish and crabs. Normal precautions should be taken when eating raw shellfish.

REFERENCES

1. *Pfiesteria* Facts, Bay Journal, Vol 7 (7), October, 1997, Chesapeake Information Management System. Chesapeake Bay Program.
2. *Pfiesteria piscicida*, Frequently Asked Questions, 1997 University of Maryland, School of Medicine, Department of Pathology, Aquatic Pathology Center
3. Results of the Public Response *Pfiesteria* Workshop - Atlanta, GA, Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Reports Vol. 46, No. 40, October 10, 1987, pp. 95.

If you have any questions, please contact your Regional Public Health Consultant or park sanitarian, or call WASO Public Health for more information at 202-565-1120 or see our NPS Public Health web page at www.nps.gov/public_health/.

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